

Regional Cargo Airlines Perspective – Safety has no “Second Place”

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The Merriam Webster Online Dictionary defines safety as: “the condition of being safe from undergoing or causing hurt, injury, or loss.” I interpret that to mean that “Safety” should not be considered a department, an adjunct to business operations, or a topic for roundtable discussion and review. In fact, in aviation it must be the universal scale, upon which we weigh our success. It must be in everyone’s job description. It must be the way we conduct business.

Having a Director of Safety as required by the regulations found in 14 CFR § 119.65 does not ensure that an air carrier will operate safely. Safe operation is the result of performing risk analysis of the policies and procedures contained in the air carrier’s accepted or approved manuals. The System Safety principles that are the foundation of the FAA’s Air Transportation Oversight System (ATOS) are a formal process by which the air carrier and regulator can assess risk. By applying these principles an air carrier can design policies and procedures minimize risk and provide a reasonable assurance that operations will be conducted safely. But responsible air carriers have been doing this informally for a long time. They didn’t just ask if it could be done; they asked if it could be done safely.

The Nature of Regionals

The regional cargo airline business is not particularly glamorous and metaphorically flies under most people’s radar. As a result, not much is written about our segment of the business. This has its advantages because it makes it easier to write about our industry without fear of contradiction. To write about it, you either have to experience it or discuss it with those who know. As an aside, it also reduces the number of footnote credits and size of the bibliography.

Regional cargo airlines provide a critical link in our Country's commercial supply chain. Although we do not enjoy the benefits that Essential Air Service carriers realize providing passenger service to rural America, we make "just-in-time" commerce a reality in rural communities. Regional cargo airlines are not identical but have a lot in common. Many operate turboprop aircraft and are certificated by the FAA under 14 CFR §§ Part 121 or 135. Some are "hub and spoke" type operations and others provide ad hoc transportation of freight from point to point.

For the purposes of this paper, I will discuss the "hub and spoke" type operations that we conduct. Serving a much larger customer, we pick up freight from smaller communities and transport it to a hub where it is trans-loaded to our customer's aircraft. They transport it to a central sort facility for redistribution. Freight distributed from the hub is sorted locally and loaded onto our aircraft for the return trip to the smaller community from which the flight originated. The type of aircraft used to provide this service is determined by several factors. The volume of freight is the key factor in selecting the size of aircraft but the ultimate decision may be affected by the community's airport capabilities. It is not unusual for a regional cargo operator to be certificated under Parts 121 and 135 of the Federal Aviation Regulations. The benefit is the flexibility to properly size the aircraft for efficient and cost effective operations.

The size of regional cargo operations may range from one to over two-hundred aircraft and their service area may range from one state to half of the United States. Another thing regional cargo operations have in common is that they are designed to fit a niche market. They tend to not expand their operations quickly and typically grow as a result of an existing demand for service and not an anticipated demand. This is not a phenomenon; it is the result of a sound business plan for conservative, responsible growth.

Small is not Bad

It does not necessarily follow that how safely an air carrier operates is directly proportional to its size and resources. The very nature of operating fewer

small aircraft can be a plus when comes to ensuring safety. Conversely, operating many large aircraft, worldwide, can make it very difficult to manage risk. For example, a regional cargo operator employing 200 people may have a much easier time communicating safety and operating issues than its larger counterpart. If all of the management staff with certificate responsibility are located in the same facility and meet face-to-face each morning to discuss the operation, it is much easier to respond to problems in a timely fashion. Decisions can be made and implemented much more quickly.

Smaller operations also benefit from a “small-town” atmosphere where everyone knows everyone else’s business and people are more likely to ask questions that might never be asked in a larger corporate environment. We benefit from the realization that **we** are the air carrier and our success or failure depends on our ability to do our job and to be vigilant that our teammates have all of the information they need to do theirs. There is no room for the “knowledge is power” attitude that causes people in larger corporate environments to hoard information in hopes of furthering their career.

In an environment that tends to run lean, you frequently see department heads volunteering their people and resources to pick up the slack for another when their workload increases. The transition is easy because these volunteers tend to know a lot about their fellow employee’s duties.

Some safety concerns don’t apply!

How can that be? By the nature of our operations, some of the concerns that plague our larger counterparts do not affect our safety. Cargo handling, weight and balance considerations, and equipment used to secure a cargo load become much simpler issues for the regional cargo carrier. Regional cargo aircraft are smaller and are not built to accommodate Unit Loading Devices (ULD). As a result, cargo must be hand-loaded. Our customer requires that each of its contractors ensure that the flight crew arrives prior to the scheduled loading of the aircraft and monitor the entire loading process. The advantages

should be obvious. The crew is trained and has the opportunity to view each package for proper identification of hazardous materials and leakage. By supervising the loading, they do not have to depend on the accuracy of weight calculations performed by a third party. Not having to deal with a prepared load renders moot the issue of asymmetrical loading of a pallet or ULD. Best of all, it is not necessary for the crew to perform gymnastics to view the load once it is on the aircraft, even if they could squeeze between the airframe and the load. In short, the crew knows how the cargo was loaded and the location of any hazardous materials they may be carrying.

If you are not dealing with a palletized load or ULD, you also do not have to deal with the issue of the associated cargo restraint systems, referred to as "bear-traps." These are the devices that are used to secure the load in a particular zone of the aircraft and prevent it from moving during the critical flight phases of takeoff and landing. There has been an increasing awareness that the repair and overhaul of these devices may not be as controlled as other aircraft parts and components. There have been documented cases of these devices being repaired and overhauled using pieces from multiple manufacturers, resulting in degraded restraining capability or failure.

Larger cargo carriers face another dilemma that we do not. Regardless, of how the cargo is loaded, it must be restrained. In a regional cargo aircraft, we use netting to secure the load. The nets must be manufactured to specific criteria in accordance with a Technical Standard Order (TSO) published by the FAA. Just keeping track of the nets you bought can be problematic for a larger international cargo operator. The nets usually follow the cargo. That is to say, nets are frequently exchanged from carrier to carrier and now the operator has the task of ensuring that the nets they get from another source meet the requirements. We do not have that problem. Our nets stay with the aircraft. Since they stay with the aircraft, they also become part of our post-flight inspection checklist. If they are found to be deficient, the mechanic removes the net and replaces it with one from our stores department. Every net issued from

stores has an acceptable parts tag because when it was received, a trained receiving inspector authenticated its conformity to the TSO.

Cargo handling is not the only aspect of regional cargo operations with safety benefits. Crew rest is positively affected. While this is not a universal standard, many regional cargo operators have uniquely low aircraft utilization rates. It is not unusual to find a carrier with a daily average utilization rate ranging from 1 to 2 hours, accumulating 2 cycles per aircraft per day. I have heard it said by our pilots that flying regional cargo is just about the best job in the world. They say that for a reason.

Typically, each aircraft performs one round-trip each day. The crew frequently flies the same two trip legs every day and enjoys the benefit of returning to their own home every day for rest. While it is carefully monitored, crew time and duty issues are seldom part of the operational equation. Exceptions only occur when it is necessary move a backup to relieve an ill crewmember or in the event of a mechanical interruption. Crewmembers are also provided comfortable rest facilities at the end of their outbound leg.

Operating the same flights daily also provides us another benefit that positively affects operational safety. Aircraft tend to be based at the same station for long periods of time. As a result, maintenance personnel become very familiar with their aircraft and develop extremely efficient communications with the flight crew. A bond, not unlike the one between military fighter pilots and their ground crew, is established. They also develop an increased sense of responsibility for one another. You can almost track the positive effects statistically by reviewing dispatch reliability of the aircraft.

Much has been said about the inferiority of how supplemental carriers maintain operational control of their aircraft. This ignores the fact that not all supplemental carriers rely on simple flight following. Some, including us, employ only certificated dispatchers to conduct operations. We are aware of other carriers that have encouraged their flight followers to become certificated

dispatchers by offering pay incentives. Upgrading from using flight following to a dispatch type operational control provides a plethora of safety related benefits.

In order to become a licensed dispatcher, the candidate must undergo the same training and pass the Air Transport Pilot test. We require them to have operating familiarization with our fleet type. They become subject to drug and alcohol testing protocols required by appendix I and J of Part 121 by virtue of performing "safety-sensitive" duties. They are required to participate in recurrent training. From an operational standpoint, our dispatchers prepare and issue flight releases after reviewing weather data, deferred maintenance items, crew rest, fuel reserve and the other issues that constitute dispatched operations. We maintain the ability to communicate with our aircraft in flight, real-time computerized flight following, shift overlap, and; we maintain an operations log that serves to ensure a good communications between shifts.

From a maintenance prospective, the FAA rightly expects that all carriers ensure that work accomplished on the carrier's aircraft is of the same quality and is accomplished in accordance with the their accepted/approved policies and procedures, whether it is performed by the carrier or by a contractor. To that end, we perform the majority of maintenance ourselves. It is impractical for a regional cargo carrier to establish the in-house capability to do component level repair and overhaul. It is not impractical for us to do our own heavy maintenance and we do just that. By planning, scheduling, and staffing to conduct maintenance in accordance with our approved maintenance program, we have excellent control of the work product.

With regard to component level repair and overhaul, we perform the same level of surveillance and quality assurance on our contract vendors as performed by our larger counterparts. We are part of the team that subscribes to the quality system exercised by the Coordinating Agency for Supplier Evaluation, Incorporated (C.A.S.E.). Participation in this organization allows the smaller operator to share surveillance information with other industry members. The

result is repeated surveillance to a standard accepted by the FAA and approved through the issuance of an Operations Specification to that effect.

What about Safety Programs?

Regional cargo carriers take safety very seriously. We perform a sort of triage when it comes to committing our limited resources to ensure that we get the most impact for the money spent. While our Company Safety Council is comprised of management representatives and non-management employees, the employees constitute the majority of voting members. These participants represent flight operations, maintenance operations, dispatch operations, and administrative support staff. A variety of safety issues are discussed including flight safety, industrial safety, and office safety issues. Much like the National Transportation Safety Board, the Council will hear investigation reports, discuss the findings, and present their recommendations to the appropriate department for consideration and implementation.

We also have a safety alliance with our customer. Twice annually, our customer convenes a meeting of the safety and operations representatives from each of its contractors. During these meetings, we have the opportunity to hear presentations on a variety of safety issues from experts in their fields. We also have the opportunity to exchange safety and operational ideas and experiences that may benefit each other.

We participate in industry forums and working groups. Recognizing the importance of standardizing the practices of cargo carriers, we seized the opportunity to participate in the first public meetings the FAA held on the Cargo Strategic Action Plan. The initial plan was developed by the FAA in response to pressure to achieve the same level of safety and quality standards as passenger air carrier operators. The cargo air carriers embraced this program and regional cargo carriers were represented. This program is now referred to as the Air Cargo System Safety Implementation Plan (ACIP), has working groups with FAA oversight, and has established an electronic communications network to conduct

its business. We continue to support the work of this group and anxiously await the final product.

While a firm date for implementation of the FAA's ATOS program at the regional cargo operator level is still elusive, we decided not to wait. We have already begun to evaluate our own operations using the Safety Attribute Inspection (SAI) Workcards. We are in the process of applying the System Safety Attributes to each our programs and are re-writing our policies and procedures to clarify them and minimize our operational risk. Once we have fine-tuned our internal guidance material using the SAIs that apply to our operation, we will replace our existing Internal Evaluation Program (IEP) with a program that employs the ATOS Element Performance Inspection (EPI) data collection tools.

In Summary

Operating a regional cargo airline or any other type of commercial aviation venture requires constant vigilance and dedication to the precept that in order to be successful, you must encourage the growth of a safety culture. You cannot let your guard down for a moment. You must always modify the question of whether you can accomplish your corporate objectives by including the word "safely". Just because regional cargo operators are not particularly visible doesn't mean we don't do it safely. In our world, "Safety has no Second Place."